

MARCH 28.

The President, Dr. LEIDY, in the chair.

Forty-one persons present.

The death of R. S. Kenderdine, M. D., and that of Solomon W. Roberts, members, were announced.

Mr. Isaac C. Martindale offered the following, which was adopted and ordered to be printed:—

This Academy having learned with deep regret of the death of its worthy member and curator, Robert S. Kenderdine, M. D., and desiring to place upon record the regret we feel in thus having to part with his valued services as an officer and his agreeable company as a member, a regret increased by our recollection of the geniality and open-heartedness which always characterized his association with us, therefore

*Resolved*, That realizing the loss which has been sustained, we tender to his family our sincere sympathy in this hour of affliction.

*Resolved*, That a copy of these resolutions, signed by the President and Recording Secretary, be forwarded to his family and that they be entered in full upon the minutes and published in the Proceedings.

Art. XIV, Chap. V. of the By-Laws, was amended by striking out all of the article after the word "meetings" in the third line, and inserting "and with like approval may change the same."

Geo. Taylor Robinson, M. D., Eugene M. Aaron, and John Edgar were elected members.

*An American Locality for Helvite.*—Prof. H. CARVILL LEWIS remarked that among some minerals which he had recently obtained from the mica mine near Amelia Court House, Virginia, a locality already well-known for its microlite and other rare minerals, was a yellow crystalline substance, which upon examination had proved to be *Helvite*. The mineral occurs in crystals and friable crystalline masses imbedded in bluish white orthoclase, and is generally associated with pale red topazolite. While no crystals were found sufficiently perfect to allow of measurement, the absence of any action upon polarized light proved their isometric character.

The mineral has a hardness of about 6, a specific gravity of 4.306, a sulphur-yellow color, a somewhat resinous lustre, and is partially translucent. It fuses at about 4 with intumescence to a

brown glass, gives no water in the closed tube, and with the fluxes gives the reactions for manganese. Fused on charcoal with soda, it gives a hepar. It is soluble in hydrochloric acid, evolving sulphuretted hydrogen and leaving a residue of gelatinous silica.

Its composition, as kindly ascertained by Mr. Reuben Haines, is as follows :

|                                |   |   |   |   |   |        |
|--------------------------------|---|---|---|---|---|--------|
| SiO <sub>2</sub>               | . | . | . | . | . | 23.10  |
| BeO                            | . | . | . | . | . | 11.47  |
| MnO                            | . | . | . | . | . | 45.38  |
| Fe <sub>2</sub> O <sub>3</sub> | . | . | . | . | . | 2.05   |
| Al <sub>2</sub> O <sub>3</sub> | . | . | . | . | . | 2.68   |
| CaO                            | . | . | . | . | . | .64    |
| K <sub>2</sub> O               | . | . | . | . | . | .39    |
| Na <sub>2</sub> O              | . | . | . | . | . | .92    |
| S                              | . | . | . | . | . | 4.50   |
| Gangue                         | . | . | . | . | . | 9.22   |
|                                |   |   |   |   |   | <hr/>  |
|                                |   |   |   |   |   | 100.35 |

In the analysis the glucina and manganese were first separated from alumina and iron by long boiling with ammonium chloride, and were then separated from each other by repeated precipitation by ammonia, the manganese being thrown down by sodium phosphate and weighed as pyrophosphate.

The mineral was separated from the associated impurities by placing upon a filter the total silica, which had been separated by evaporation with acid in the usual manner, and washing it seven or eight times with a hot concentrated solution of sodium carbonate. By this means all the soluble silica of the mineral was separated from any particles of quartz, orthoclase, or other insoluble silicates.

Regarding a part of the manganese as combined with sulphur, and deducting a proportionate amount of oxygen from the analysis, it will stand :

|                                |   |       |                     |                                |   |       |
|--------------------------------|---|-------|---------------------|--------------------------------|---|-------|
| SiO <sub>2</sub>               | . | 23.10 | or, without gangue, | SiO <sub>2</sub>               | . | 25.48 |
| BeO                            | . | 11.47 |                     | BeO                            | . | 12.63 |
| MnO                            | . | 35.40 |                     | MnO                            | . | 39.07 |
| Al <sub>2</sub> O <sub>3</sub> | . | 2.68  |                     | Al <sub>2</sub> O <sub>3</sub> | . | 2.95  |
| Fe <sub>2</sub> O <sub>3</sub> | . | 2.05  |                     | Fe <sub>2</sub> O <sub>3</sub> | . | 2.26  |
| CaO                            | . | .64   |                     | CaO                            | . | .71   |
| K <sub>2</sub> O               | . | .39   |                     | K <sub>2</sub> O               | . | .43   |
| Na <sub>2</sub> O              | . | .92   |                     | Na <sub>2</sub> O              | . | 1.01  |
| Mn                             | . | 7.73  |                     | Mn                             | . | 8.66  |
| S                              | . | 4.50  |                     | S                              | . | 4.96  |
| Gangue                         | . | 9.22  |                     |                                |   |       |
|                                |   |       |                     |                                |   |       |
| <hr/>                          |   |       |                     | <hr/>                          |   |       |
| 98.10                          |   |       |                     | 98.16                          |   |       |

This result differs considerably from the analyses of Helvite heretofore published, and does not lead to the formula usually given to Helvite. It is desirable that further investigation should be made when more material is discovered.

Helvite has not previously been found in America.

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APRIL 4.

The President, Dr. LEIDY, in the chair.

Twenty-nine persons present.

*On Sagitta, etc.*—PROF. LEIDY stated, that in a recent trip to Atlantic City, N. J., he for the first time met with the singular worm *Sagitta*. It occurred in large number in the same pond in which he had previously noticed *Balanoglossus*. Whether it was there at the time of his former visit he was unable to say, as the animal is as transparent as the water in which it lives, and may easily escape observation. His attention was accidentally directed to its discovery. Along the edge of the pond there were numerous linear white bodies, flaccid and motionless, which he at first took for fragments of a bleached alga. From the uniformity of their size he stooped to examine them more closely, when he noticed others in the water, more transparent, lying on the sand and occasionally moving suddenly and so actively as to send a little spray above the surface. On transferring some of these bodies to a vial he detected their nature. Subsequently the water was seen to swarm with the little creatures. They are exceedingly sensitive and quickly die after removal. In life they are perfectly transparent and colorless, and move actively at intervals with a sort of spasmodic jerk, bending the tail downwards and darting forward. After death they become flaccid, dull and white, and hence the appearance of the multitude of dead ones on shore.

The *Sagitta* is interesting as being one of those peculiar animals which have puzzled naturalists as to its exact relative position. It is now usually regarded as the representative of an order of worms with the name of *Chaetognatha*.

A species, *Sagitta elegans*, has been described by Prof Verrill, as occurring at Wood's Holl, Vineyard Sound, and Gay Head, on the New England Coast, and he refers to a second undetermined species occurring in Vineyard Sound.

The *Sagitta* of Atlantic City appears to differ from the former, and also from all other described species found elsewhere, and may be readily distinguished from them by its greater number of mandibular hooks. It may be characterized as follows:

**SAGITTA FALCIDENS.** Animal transparent, colorless; body compressed, elongated fusiform, with two pairs of lateral hemielliptical fins, separated by intervals from each other and the broad obcordate caudal fin, which is truncated posteriorly. Head obcordate, about as broad as it is long. Pre-